California Climate Adaptation Strategy

Speaker: Sandra Miranda
December 9th, 2009

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Agenda

- Importance of Adaptation
- California Climate Adaptation Strategy (CAS)
  - CAS Working Group Sectors
  - Elements of CAS
  - California Climate Change Impacts
  - Key Recommendations
  - Cross-sector Strategies
  - CAS Examples

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Importance of Adaptation

- Climate Change Impacts are already occurring
- Future climate impacts projected to be worse
- Without adaptation, $2.5 trillion are at risk
- Opportunity to reduce risks and build resilience
- Adaptation is required under CEQA

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California Climate Adaptation

Governor's Executive Order S-13-08:

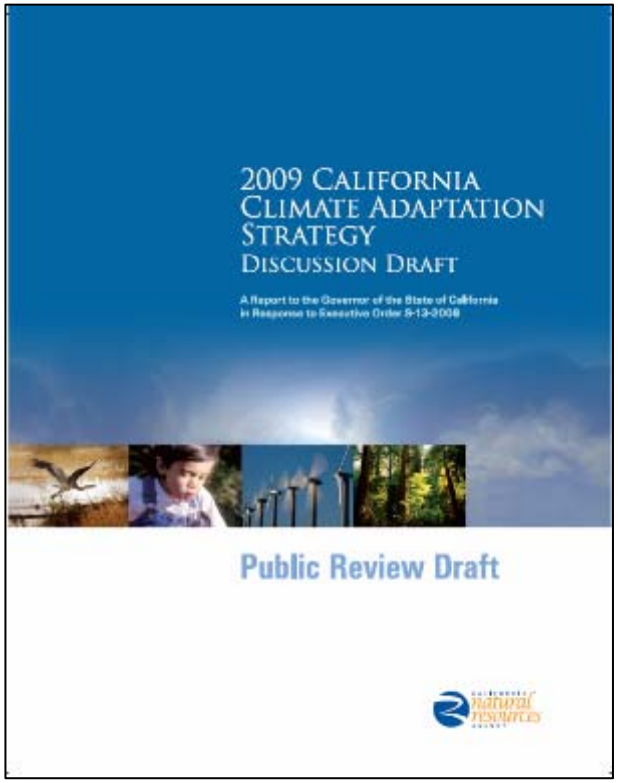
- State Climate Adaptation Strategy (CAS)
- California Sea Level Rise Assessment Report
- Transportation systems vulnerability assessment

http:/gov.ca.gov/executive-order/11036/

Source: Dan Cayan et al. 2009

California Climate Adaptation Strategy

- First state-wide, multi-sector, region-specific adaptation strategy in the US
- Led by CNRA under Climate Action Team
- State agencies led 7 different working groups
- Coordinated with state mitigation plan
- Focused on “Science, Strategy, Action”
- Strategies = What can be done by December 2010
- Beginning of conversation, not end



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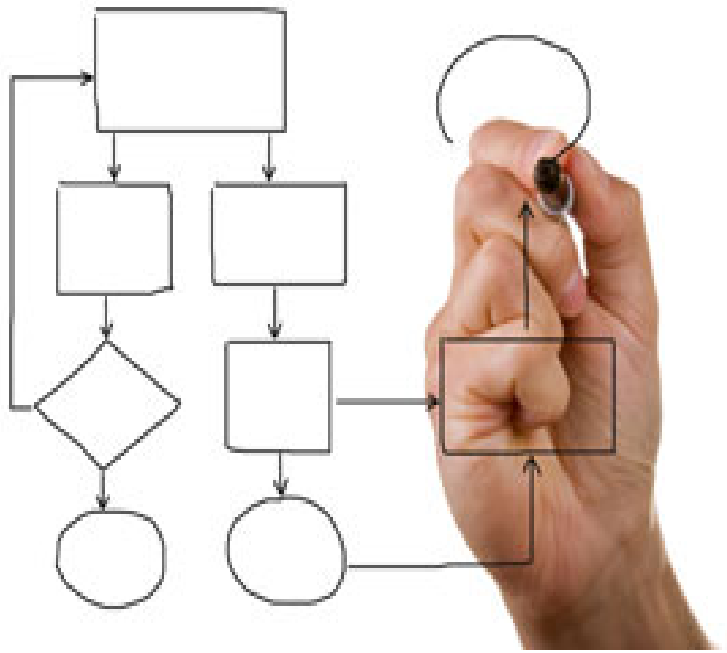
CAS Working Group Sectors

Public Health	Led by: the Department of Public Health Collaborator: California Air Resources Board
Biodiversity and Habitat	Led by: the Department of Parks and Recreation and the Department of Fish and Game
Ocean and Coastal Resources	Led by: the Ocean Protection Council
Water Management	Led by: the Department of Water Resources
Agriculture	Led by: the Department of Food and Agriculture and the Department of Conservation
Forestry	Led by: the Department of Forestry and Fire Protection and the Board of Forestry
Transportation and Energy	Led by: the Department of Transportation and the California Energy Commission

Elements of the CAS

- Synthesis of statewide impacts from latest research
- Outline key recommendations
- Describe potential impacts on sectors
- Provide sector-based adaptation strategies



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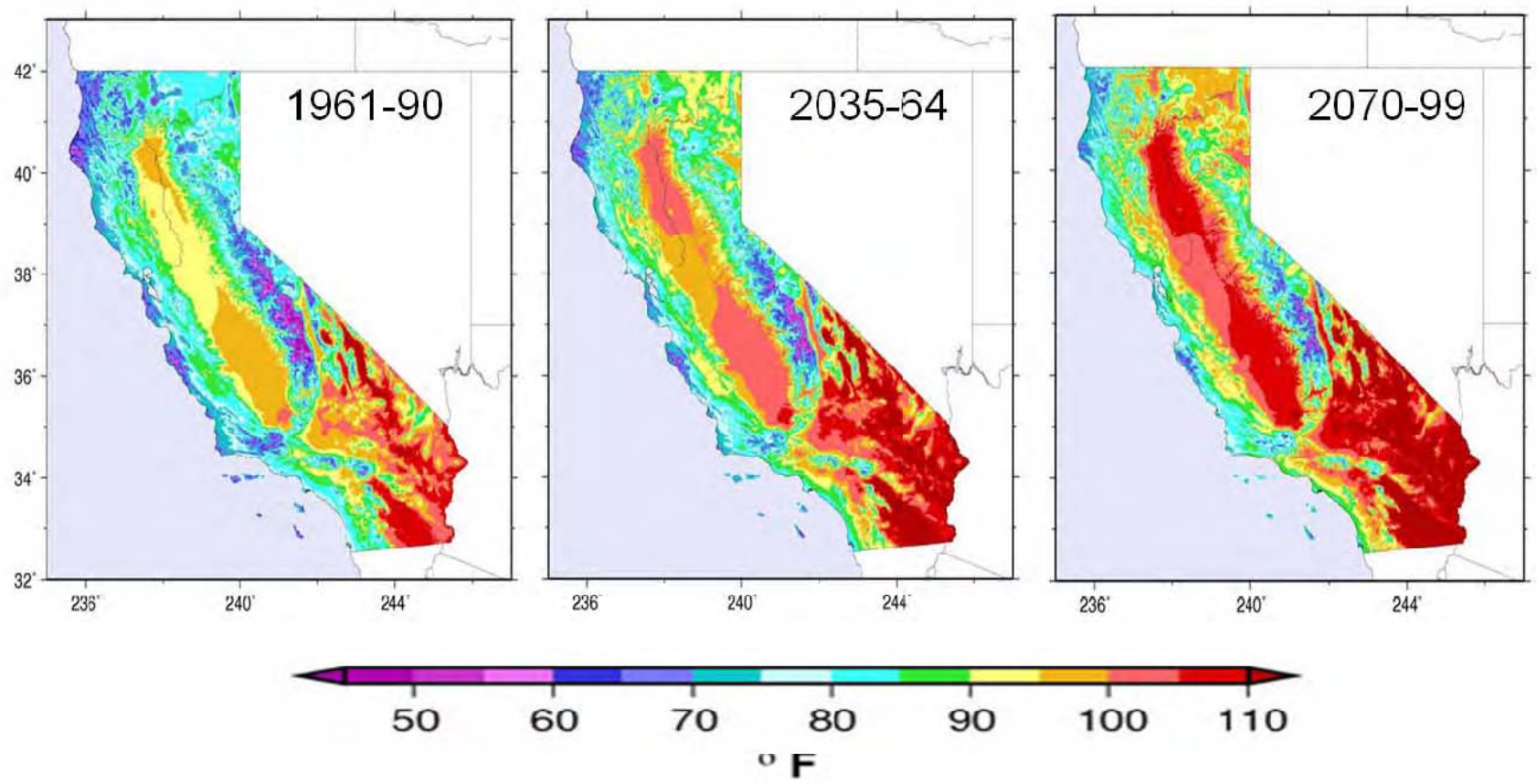
California Climate Change Impacts

California historical and projected July temperature increase 1961-2099



Source: Dan Cayan et al. 2009

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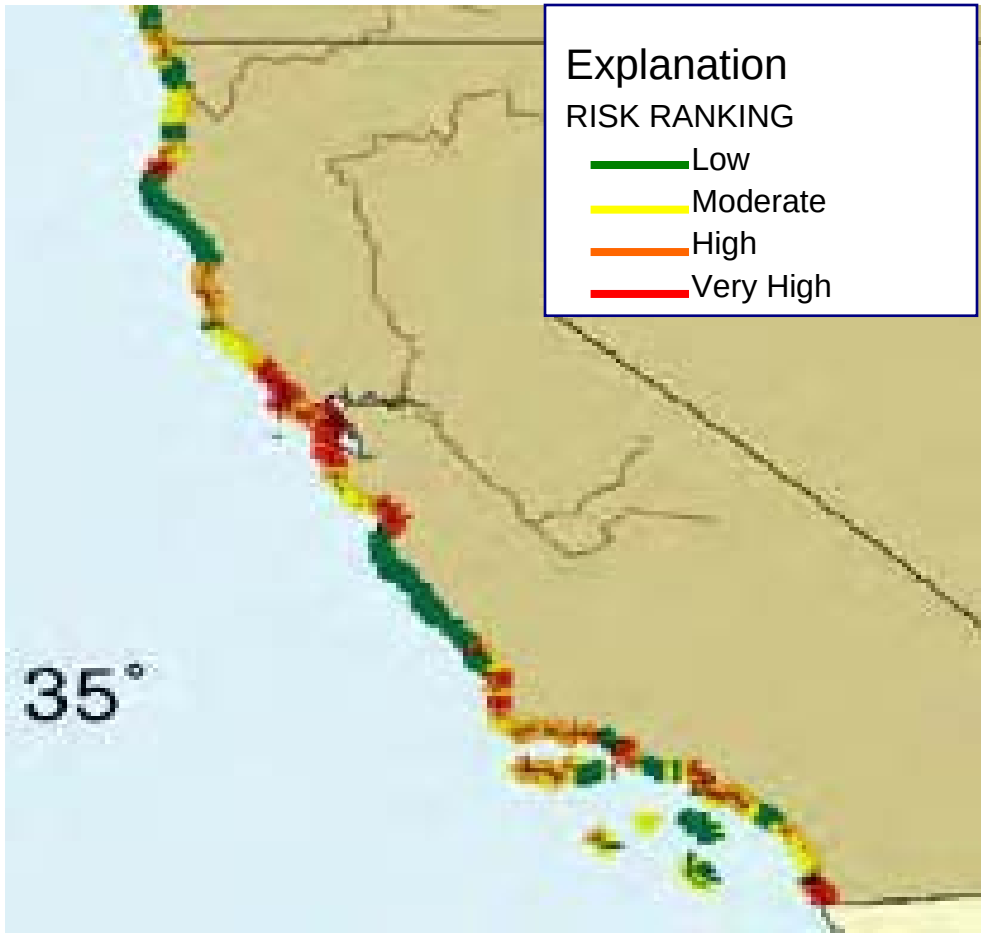
California Climate Change Impacts (continued)

Vulnerability of California Coastal Areas to Sea Level Rise



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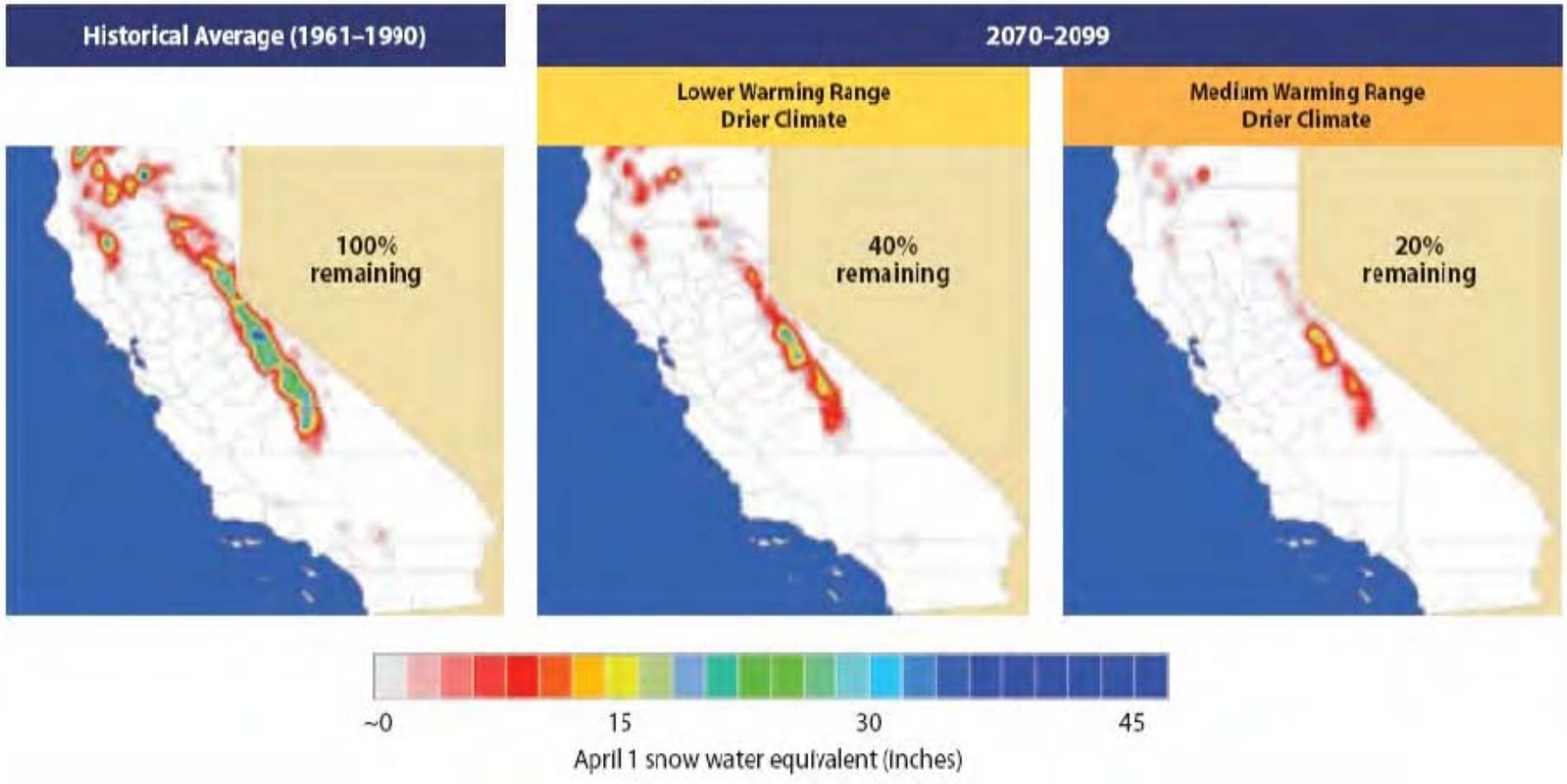
California Climate Change Impacts (continued)

Decreasing California Snowpack



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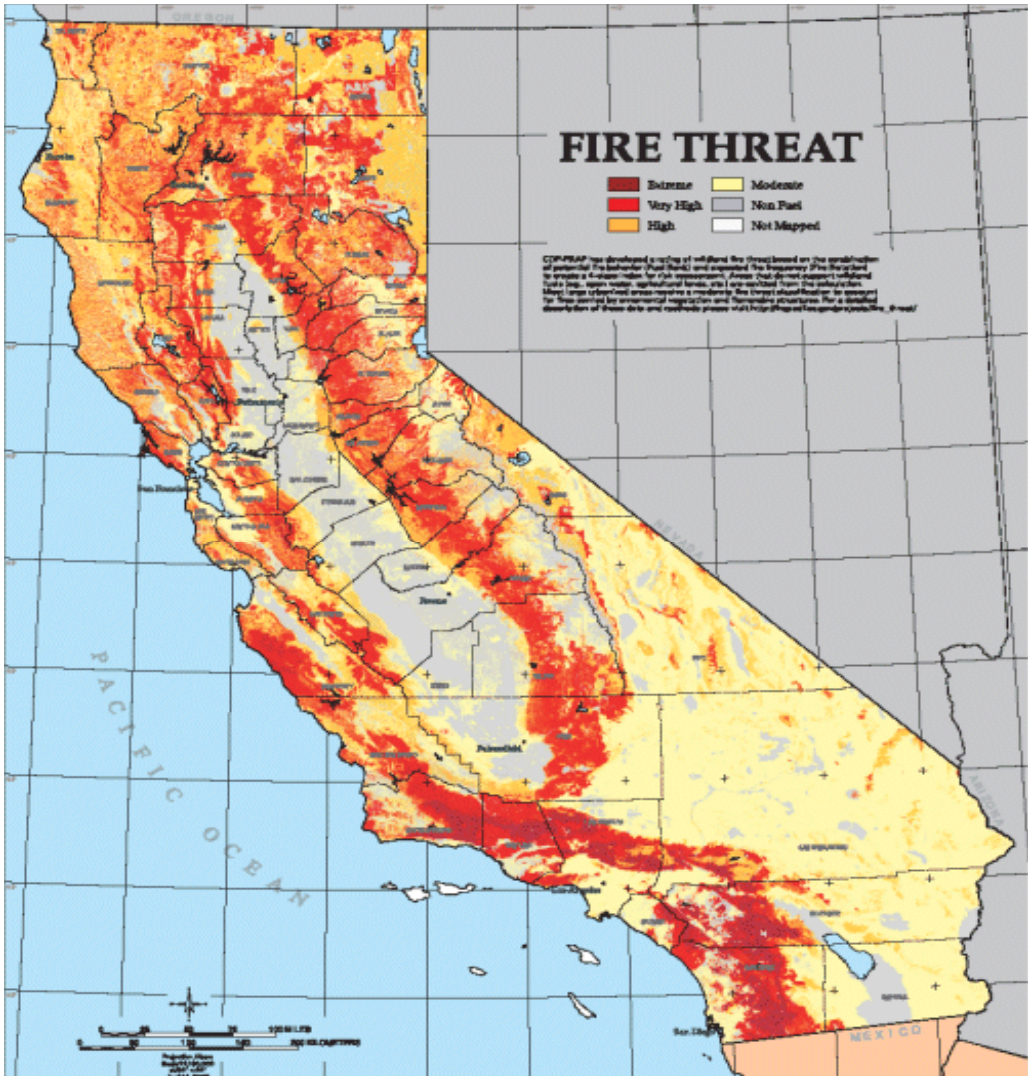
California Climate Change Impacts (continued)

Increasing Wildfire Risk



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Key Recommendations

- Avoid significant new development in high risk areas
- Sector agencies develop adaptation plans
- Develop Climate Adaptation Advisory Panel
- Implement CEQA = climate impacts to projects
- Adapt water management and use for climate change
- Identify most vulnerable communities and habitats (2010)
- Offer guidance/tools for local community planning
- Identify wildfire risk areas (June 2010)
- Increase renewable energy supply/efficiency
- Make synthesized research results easily accessible
- Provide guidance to local communities on assessing ways to maintain/improve public health under climate change

Cross-sector Strategies

- Coordinate and centralize adaptation efforts
- Provide tools to effectively guide local land use decisions
- Improve emergency preparedness and response
- Expand research and monitoring
- Develop a statewide climate vulnerability assessment
- Develop a coordinated public outreach effort

CAS Example - Water Management

- Regional water management
  - Fully implement Integrated Regional Water Management (IRWM)
  - Aggressively increase water use efficiency
- Statewide water management
  - Flood management
  - Ecosystem stewardship
  - Surface and groundwater storage
  - Sacramento-San Joaquin Delta
- Decision-making capacity
- Sustainable financing

CAS Example - Coastal Resources

- State policy to avoid future sea level rise hazards
- Decision guidance for dealing with existing infrastructure and development and planning new projects
- Data and information support for local and state agencies
- Continued state agency and local planning

CAS Example - Forestry

- Incorporate climate information into Resource Management and Fire Protection programs
- Improve capacity for long term and real-time risk and vulnerability assessments
- Support local actions to address vulnerability and manage for resilience
- Monitor forest health and adaptive management

CAS Example - Infrastructure

- Energy segment:
  - Increase Energy Efficiency in Climate Vulnerable Areas
  - Assess impacts from climate change in siting and re-licensing of new energy facilities
  - Develop hydropower decision-support tools to better manage climate change variability
  - Identify how state renewable energy goals could be impacted by climate impacts

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Thank you

CAS link: www.climatechange.ca.gov/adaptation

CalAdapt: a prototype tool being developed to visualize climate change risk and adaptation options in California

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Learn how SAIC's energy and climate change team can help you.

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